

Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 305072 Report

This analysis was run 06/08/26 on database version 649.

Pham number 305072 has 53 members, 7 are drafts.

Phages represented in each track:

- Track 1 : PainterBoy_58
- Track 2 : Adzzy_58
- Track 3 : Caraxes_57, Superchunk_55
- Track 4 : Trixie_55, Kalpine_55
- Track 5 : Herbertwm_55
- Track 6 : Bradman_56, Quokka_55, MajorMajor_56
- Track 7 : SwirlSquare_60
- Track 8 : Koduck_58
- Track 9 : Ph8s_58
- Track 10 : MarysWell_49, Dublin_49
- Track 11 : Coog_48, Midas2_48, Micasa_50
- Track 12 : Jabiru_51
- Track 13 : Tiger_48, Aragog_48, AgentM_48, ForGetIt_49, Phlorence_47, Discoknowium_47, PickleBack_49, Jovo_49, Lev2_49, Archetta_48, Conspiracy_49
- Track 14 : Bluefalcon_48, Ghouboy_52, SydNat_52, Zolita_51
- Track 15 : Prinashe11_49
- Track 16 : PetterN_54, Chadwick_53
- Track 17 : Bonamassa_49, Florence1_47, LittleCherry_49
- Track 18 : Florence4_49
- Track 19 : Milcery_49, George_47
- Track 20 : EITiger69_52, Airmid_50
- Track 21 : Theia_48
- Track 22 : Cuco_49
- Track 23 : Scorpio_54
- Track 24 : Benedict_53
- Track 25 : Naca_50
- Track 26 : HuhtaEnerson15_49
- Track 27 : UnionJack_51
- Track 28 : Alma_57

Summary of Final Annotations (See graph section above for start numbers):

The start number called the most often in the published annotations is 9, it was called in 43 of the 46 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adzzy_58, AgentM_48, Airmid_50, Alma_57, Aragog_48, Archetta_48, Benedict_53, Bluefalcon_48, Bonamassa_49, Caraxes_57, Chadwick_53, Conspiracy_49, Coog_48, Cuco_49, Discoknowium_47, Dublin_49, EITiger69_52, Florence1_47, ForGetIt_49, George_47, Ghoulboy_52, Herbertwm_55, HuhtaEnerson15_49, Jabiru_51, Jovo_49, Lev2_49, LittleCherry_49, MarysWell_49, Micasa_50, Midas2_48, Milcery_49, Naca_50, PainterBoy_58, PetterN_54, Ph8s_58, Phlorence_47, PickleBack_49, Prinash11_49, Scorpia_54, Superchunk_55, SwirlSquare_60, SydNat_52, Theia_48, Tiger_48, UnionJack_51, Zolita_51,

Genes that have the "Most Annotated" start but do not call it:

- Florence4_49,

Genes that do not have the "Most Annotated" start:

- Bradman_56, Kalpine_55, Koduck_58, MajorMajor_56, Quokka_55, Trixie_55,

Summary by start number:

Start 8:

- Found in 8 of 53 (15.1%) of genes in pham
- No Manual Annotations of this start.
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Florence4_49 (A5),

Start 9:

- Found in 47 of 53 (88.7%) of genes in pham
- Manual Annotations of this start: 43 of 46
- Called 97.9% of time when present
- Phage (with cluster) where this start called: Adzzy_58 (A2), AgentM_48 (A5), Airmid_50 (A5), Alma_57 (A9), Aragog_48 (A5), Archetta_48 (A5), Benedict_53 (A5), Bluefalcon_48 (A5), Bonamassa_49 (A5), Caraxes_57 (A2), Chadwick_53 (A5), Conspiracy_49 (A5), Coog_48 (A5), Cuco_49 (A5), Discoknowium_47 (A5), Dublin_49 (A5), EITiger69_52 (A5), Florence1_47 (A5), ForGetIt_49 (A5), George_47 (A5), Ghoulboy_52 (A5), Herbertwm_55 (A2), HuhtaEnerson15_49 (A5), Jabiru_51 (A5), Jovo_49 (A5), Lev2_49 (A5), LittleCherry_49 (A5), MarysWell_49 (A5), Micasa_50 (A5), Midas2_48 (A5), Milcery_49 (A5), Naca_50 (A5), PainterBoy_58 (A16), PetterN_54 (A5), Ph8s_58 (A2), Phlorence_47 (A5), PickleBack_49 (A5), Prinash11_49 (A5), Scorpia_54 (A5), Superchunk_55 (A2), SwirlSquare_60 (A2), SydNat_52 (A5), Theia_48 (A5), Tiger_48 (A5), UnionJack_51 (A5), Zolita_51 (A5),

Start 10:

- Found in 6 of 53 (11.3%) of genes in pham
- Manual Annotations of this start: 3 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bradman_56 (A2), Kalpine_55 (A2), Koduck_58 (A2), MajorMajor_56 (A2), Quokka_55 (A2), Trixie_55 (A2),

Summary by clusters:

There are 4 clusters represented in this pham: A9, A16, A5, A2,

Info for manual annotations of cluster A16:

- Start number 9 was manually annotated 1 time for cluster A16.

Info for manual annotations of cluster A2:

- Start number 9 was manually annotated 5 times for cluster A2.
- Start number 10 was manually annotated 3 times for cluster A2.

Info for manual annotations of cluster A5:

- Start number 9 was manually annotated 36 times for cluster A5.

Info for manual annotations of cluster A9:

- Start number 9 was manually annotated 1 time for cluster A9.

Gene Information:

Gene: Adzzy_58 Start: 36978, Stop: 36487, Start Num: 9

Candidate Starts for Adzzy_58:

(1, 37269), (3, 37194), (Start: 9 @36978 has 43 MA's), (15, 36840), (16, 36834), (20, 36822), (31, 36720), (37, 36639), (45, 36573), (47, 36555), (55, 36492),

Gene: AgentM_48 Start: 36508, Stop: 36041, Start Num: 9

Candidate Starts for AgentM_48:

(Start: 9 @36508 has 43 MA's), (13, 36409), (20, 36355), (21, 36352), (22, 36349), (46, 36112), (53, 36058),

Gene: Airmid_50 Start: 36667, Stop: 36200, Start Num: 9

Candidate Starts for Airmid_50:

(5, 36814), (Start: 9 @36667 has 43 MA's), (13, 36568), (16, 36526), (17, 36523), (20, 36514), (36, 36343), (43, 36292),

Gene: Alma_57 Start: 38259, Stop: 37786, Start Num: 9

Candidate Starts for Alma_57:

(Start: 9 @38259 has 43 MA's), (13, 38160), (16, 38118), (20, 38106), (25, 38082), (30, 38022), (35, 37971), (55, 37791),

Gene: Aragog_48 Start: 36528, Stop: 36061, Start Num: 9

Candidate Starts for Aragog_48:

(Start: 9 @36528 has 43 MA's), (13, 36429), (20, 36375), (21, 36372), (22, 36369), (46, 36132), (53, 36078),

Gene: Archetta_48 Start: 36938, Stop: 36471, Start Num: 9

Candidate Starts for Archetta_48:

(Start: 9 @36938 has 43 MA's), (13, 36839), (20, 36785), (21, 36782), (22, 36779), (46, 36542), (53, 36488),

Gene: Benedict_53 Start: 36915, Stop: 36427, Start Num: 9

Candidate Starts for Benedict_53:

(5, 37062), (Start: 9 @36915 has 43 MA's), (13, 36816), (16, 36774), (17, 36771), (20, 36762), (39, 36558), (41, 36549), (55, 36441),

Gene: Bluefalcon_48 Start: 37083, Stop: 36616, Start Num: 9

Candidate Starts for Bluefalcon_48:

(7, 37119), (Start: 9 @37083 has 43 MA's), (13, 36984), (20, 36930), (21, 36927), (22, 36924), (23, 36921), (46, 36687), (53, 36633),

Gene: Bonamassa_49 Start: 36951, Stop: 36457, Start Num: 9

Candidate Starts for Bonamassa_49:

(8, 36981), (Start: 9 @36951 has 43 MA's), (13, 36852), (16, 36810), (17, 36807), (20, 36798), (42, 36579), (50, 36501), (55, 36471),

Gene: Bradman_56 Start: 37152, Stop: 36703, Start Num: 10

Candidate Starts for Bradman_56:

(Start: 10 @37152 has 3 MA's), (16, 37014), (18, 37008), (19, 37005), (20, 37002), (26, 36975), (27, 36948), (32, 36909), (50, 36738), (55, 36708),

Gene: Caraxes_57 Start: 36675, Stop: 36196, Start Num: 9

Candidate Starts for Caraxes_57:

(3, 36891), (Start: 9 @36675 has 43 MA's), (15, 36513), (16, 36507), (20, 36495), (31, 36393), (36, 36324), (37, 36312), (43, 36270), (55, 36201),

Gene: Chadwick_53 Start: 36756, Stop: 36268, Start Num: 9

Candidate Starts for Chadwick_53:

(Start: 9 @36756 has 43 MA's), (13, 36657), (16, 36615), (17, 36612), (20, 36603), (23, 36594), (41, 36390), (55, 36282),

Gene: Conspiracy_49 Start: 36750, Stop: 36283, Start Num: 9

Candidate Starts for Conspiracy_49:

(Start: 9 @36750 has 43 MA's), (13, 36651), (20, 36597), (21, 36594), (22, 36591), (46, 36354), (53, 36300),

Gene: Coog_48 Start: 36935, Stop: 36441, Start Num: 9

Candidate Starts for Coog_48:

(Start: 9 @36935 has 43 MA's), (17, 36791), (19, 36785), (20, 36782), (42, 36563), (50, 36485), (55, 36455),

Gene: Cuco_49 Start: 36807, Stop: 36313, Start Num: 9

Candidate Starts for Cuco_49:

(7, 36843), (Start: 9 @36807 has 43 MA's), (17, 36663), (19, 36657), (20, 36654), (42, 36435), (50, 36357), (55, 36327),

Gene: Discoknowium_47 Start: 36417, Stop: 35950, Start Num: 9

Candidate Starts for Discoknowium_47:

(Start: 9 @36417 has 43 MA's), (13, 36318), (20, 36264), (21, 36261), (22, 36258), (46, 36021), (53, 35967),

Gene: Dublin_49 Start: 36919, Stop: 36452, Start Num: 9

Candidate Starts for Dublin_49:

(7, 36955), (Start: 9 @36919 has 43 MA's), (13, 36820), (20, 36766), (21, 36763), (22, 36760), (46, 36523), (53, 36469),

Gene: EITiger69_52 Start: 36876, Stop: 36409, Start Num: 9

Candidate Starts for EITiger69_52:

(5, 37023), (Start: 9 @36876 has 43 MA's), (13, 36777), (16, 36735), (17, 36732), (20, 36723), (36, 36552), (43, 36501),

Gene: Florence1_47 Start: 36280, Stop: 35786, Start Num: 9

Candidate Starts for Florence1_47:

(8, 36310), (Start: 9 @36280 has 43 MA's), (13, 36181), (16, 36139), (17, 36136), (20, 36127), (42, 35908), (50, 35830), (55, 35800),

Gene: Florence4_49 Start: 36310, Stop: 35786, Start Num: 8

Candidate Starts for Florence4_49:

(8, 36310), (Start: 9 @36280 has 43 MA's), (13, 36181), (16, 36139), (17, 36136), (20, 36127), (42, 35908), (50, 35830), (55, 35800),

Gene: ForGetIt_49 Start: 36775, Stop: 36308, Start Num: 9

Candidate Starts for ForGetIt_49:

(Start: 9 @36775 has 43 MA's), (13, 36676), (20, 36622), (21, 36619), (22, 36616), (46, 36379), (53, 36325),

Gene: George_47 Start: 36848, Stop: 36360, Start Num: 9

Candidate Starts for George_47:

(8, 36878), (Start: 9 @36848 has 43 MA's), (13, 36749), (16, 36707), (17, 36704), (20, 36695), (42, 36476),

Gene: Ghouboy_52 Start: 37654, Stop: 37187, Start Num: 9

Candidate Starts for Ghouboy_52:

(7, 37690), (Start: 9 @37654 has 43 MA's), (13, 37555), (20, 37501), (21, 37498), (22, 37495), (23, 37492), (46, 37258), (53, 37204),

Gene: Herbertwm_55 Start: 37937, Stop: 37377, Start Num: 9

Candidate Starts for Herbertwm_55:

(2, 38162), (Start: 9 @37937 has 43 MA's), (11, 37868), (20, 37772), (21, 37769), (23, 37763), (35, 37625), (36, 37601), (38, 37583), (51, 37448), (56, 37418),

Gene: HuhtaEnerson15_49 Start: 36845, Stop: 36351, Start Num: 9

Candidate Starts for HuhtaEnerson15_49:

(4, 37010), (5, 36992), (Start: 9 @36845 has 43 MA's), (13, 36746), (16, 36704), (17, 36701), (20, 36692), (42, 36473), (50, 36395), (55, 36365),

Gene: Jabiru_51 Start: 36770, Stop: 36282, Start Num: 9

Candidate Starts for Jabiru_51:

(5, 36917), (Start: 9 @36770 has 43 MA's), (13, 36671), (16, 36629), (17, 36626), (20, 36617), (23, 36608), (39, 36413), (41, 36404), (55, 36296),

Gene: Jovo_49 Start: 37031, Stop: 36564, Start Num: 9

Candidate Starts for Jovo_49:

(Start: 9 @37031 has 43 MA's), (13, 36932), (20, 36878), (21, 36875), (22, 36872), (46, 36635), (53, 36581),

Gene: Kalpine_55 Start: 38383, Stop: 37931, Start Num: 10

Candidate Starts for Kalpine_55:

(Start: 10 @38383 has 3 MA's), (16, 38245), (18, 38239), (19, 38236), (20, 38233), (26, 38206), (27, 38179), (32, 38140), (40, 38059),

Gene: Koduck_58 Start: 37415, Stop: 36957, Start Num: 10

Candidate Starts for Koduck_58:

(Start: 10 @37415 has 3 MA's), (16, 37277), (19, 37268), (20, 37265), (26, 37238), (27, 37211), (32, 37172), (41, 37082), (55, 36962),

Gene: Lev2_49 Start: 36663, Stop: 36196, Start Num: 9

Candidate Starts for Lev2_49:

(Start: 9 @36663 has 43 MA's), (13, 36564), (20, 36510), (21, 36507), (22, 36504), (46, 36267), (53, 36213),

Gene: LittleCherry_49 Start: 36865, Stop: 36371, Start Num: 9

Candidate Starts for LittleCherry_49:

(8, 36895), (Start: 9 @36865 has 43 MA's), (13, 36766), (16, 36724), (17, 36721), (20, 36712), (42, 36493), (50, 36415), (55, 36385),

Gene: MajorMajor_56 Start: 37152, Stop: 36703, Start Num: 10

Candidate Starts for MajorMajor_56:

(Start: 10 @37152 has 3 MA's), (16, 37014), (18, 37008), (19, 37005), (20, 37002), (26, 36975), (27, 36948), (32, 36909), (50, 36738), (55, 36708),

Gene: MarysWell_49 Start: 37162, Stop: 36695, Start Num: 9

Candidate Starts for MarysWell_49:

(7, 37198), (Start: 9 @37162 has 43 MA's), (13, 37063), (20, 37009), (21, 37006), (22, 37003), (46, 36766), (53, 36712),

Gene: Micasa_50 Start: 37033, Stop: 36539, Start Num: 9

Candidate Starts for Micasa_50:

(Start: 9 @37033 has 43 MA's), (17, 36889), (19, 36883), (20, 36880), (42, 36661), (50, 36583), (55, 36553),

Gene: Midas2_48 Start: 36935, Stop: 36441, Start Num: 9

Candidate Starts for Midas2_48:

(Start: 9 @36935 has 43 MA's), (17, 36791), (19, 36785), (20, 36782), (42, 36563), (50, 36485), (55, 36455),

Gene: Milcery_49 Start: 36816, Stop: 36328, Start Num: 9

Candidate Starts for Milcery_49:

(8, 36846), (Start: 9 @36816 has 43 MA's), (13, 36717), (16, 36675), (17, 36672), (20, 36663), (42, 36444),

Gene: Naca_50 Start: 37309, Stop: 36818, Start Num: 9

Candidate Starts for Naca_50:

(5, 37456), (6, 37375), (8, 37339), (Start: 9 @37309 has 43 MA's), (13, 37210), (16, 37168), (17, 37165), (20, 37156), (39, 36952), (41, 36943), (48, 36886), (55, 36832),

Gene: PainterBoy_58 Start: 38029, Stop: 37562, Start Num: 9

Candidate Starts for PainterBoy_58:

(Start: 9 @38029 has 43 MA's), (15, 37891), (20, 37873), (28, 37795), (29, 37777), (31, 37771), (34, 37735), (44, 37648), (49, 37600), (54, 37573),

Gene: PetterN_54 Start: 36924, Stop: 36436, Start Num: 9

Candidate Starts for PetterN_54:

(Start: 9 @36924 has 43 MA's), (13, 36825), (16, 36783), (17, 36780), (20, 36771), (23, 36762), (41, 36558), (55, 36450),

Gene: Ph8s_58 Start: 37416, Stop: 36925, Start Num: 9

Candidate Starts for Ph8s_58:

(1, 37707), (3, 37632), (Start: 9 @37416 has 43 MA's), (15, 37275), (16, 37269), (20, 37257), (31, 37155), (38, 37068),

Gene: Phlorence_47 Start: 36408, Stop: 35941, Start Num: 9

Candidate Starts for Phlorence_47:

(Start: 9 @36408 has 43 MA's), (13, 36309), (20, 36255), (21, 36252), (22, 36249), (46, 36012), (53, 35958),

Gene: PickleBack_49 Start: 36655, Stop: 36188, Start Num: 9

Candidate Starts for PickleBack_49:

(Start: 9 @36655 has 43 MA's), (13, 36556), (20, 36502), (21, 36499), (22, 36496), (46, 36259), (53, 36205),

Gene: Prin Ashe11_49 Start: 36718, Stop: 36230, Start Num: 9

Candidate Starts for Prin Ashe11_49:

(8, 36748), (Start: 9 @36718 has 43 MA's), (13, 36619), (16, 36577), (17, 36574), (20, 36565), (42, 36346), (53, 36247),

Gene: Quokka_55 Start: 37152, Stop: 36703, Start Num: 10

Candidate Starts for Quokka_55:

(Start: 10 @37152 has 3 MA's), (16, 37014), (18, 37008), (19, 37005), (20, 37002), (26, 36975), (27, 36948), (32, 36909), (50, 36738), (55, 36708),

Gene: Scorpio_54 Start: 36983, Stop: 36492, Start Num: 9

Candidate Starts for Scorpio_54:

(Start: 9 @36983 has 43 MA's), (13, 36884), (16, 36842), (17, 36839), (20, 36830), (23, 36821), (39, 36626), (41, 36617), (48, 36560), (55, 36506),

Gene: Superchunk_55 Start: 36675, Stop: 36196, Start Num: 9

Candidate Starts for Superchunk_55:

(3, 36891), (Start: 9 @36675 has 43 MA's), (15, 36513), (16, 36507), (20, 36495), (31, 36393), (36, 36324), (37, 36312), (43, 36270), (55, 36201),

Gene: SwirlSquare_60 Start: 37597, Stop: 37061, Start Num: 9

Candidate Starts for SwirlSquare_60:

(Start: 9 @37597 has 43 MA's), (12, 37522), (15, 37459), (16, 37453), (20, 37441), (31, 37339), (34, 37288), (37, 37240), (38, 37234), (48, 37168), (52, 37123), (57, 37066),

Gene: SydNat_52 Start: 37663, Stop: 37196, Start Num: 9

Candidate Starts for SydNat_52:

(7, 37699), (Start: 9 @37663 has 43 MA's), (13, 37564), (20, 37510), (21, 37507), (22, 37504), (23, 37501), (46, 37267), (53, 37213),

Gene: Theia_48 Start: 37140, Stop: 36673, Start Num: 9

Candidate Starts for Theia_48:

(7, 37176), (Start: 9 @37140 has 43 MA's), (13, 37041), (20, 36987), (21, 36984), (22, 36981), (24, 36972), (46, 36744), (53, 36690),

Gene: Tiger_48 Start: 36329, Stop: 35862, Start Num: 9

Candidate Starts for Tiger_48:

(Start: 9 @36329 has 43 MA's), (13, 36230), (20, 36176), (21, 36173), (22, 36170), (46, 35933), (53, 35879),

Gene: Trixie_55 Start: 38251, Stop: 37799, Start Num: 10

Candidate Starts for Trixie_55:

(Start: 10 @38251 has 3 MA's), (16, 38113), (18, 38107), (19, 38104), (20, 38101), (26, 38074), (27, 38047), (32, 38008), (40, 37927),

Gene: UnionJack_51 Start: 36473, Stop: 35982, Start Num: 9

Candidate Starts for UnionJack_51:

(Start: 9 @36473 has 43 MA's), (13, 36374), (14, 36347), (16, 36332), (17, 36329), (20, 36320), (23, 36311), (33, 36209), (41, 36107), (55, 35996),

Gene: Zolita_51 Start: 37667, Stop: 37200, Start Num: 9

Candidate Starts for Zolita_51:

(7, 37703), (Start: 9 @37667 has 43 MA's), (13, 37568), (20, 37514), (21, 37511), (22, 37508), (23, 37505), (46, 37271), (53, 37217),